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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/401,080	09/22/1999	TAKASHI SHIKAMA	36856.00218	4173

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JOSEPH R KEATING ESQ
INTELLECTUAL PROPERTY GROUP
10400 Eaton Place Suite 312
fairfax, VA 22030

EXAMINER

NGUYEN, TUYEN T

ART UNIT PAPER NUMBER

2832

DATE MAILED: 12/20/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

3)

7) 8

a. 17

Office Action Summary

Application No.
09/401,080

Applicant(s)
Shikama et al.

Examiner
Tuyen Nguyen

Art Unit
2832



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 3, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-12, 17, 18, and 20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-12, 17, 18, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6 20) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election with traverse of the restriction in Paper No. 11 is acknowledged. The traversal is on the ground(s) that invention of group II could not reasonably be combined with the invention of group I. This is found persuasive.

Claims 1, 3-12, 17, 18 and 20 will be examined on merit.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 8-306570 in view of JP 63-79306 and Masuda [JP 08-250333].

JP 8-306570 discloses a composite inductor [see figure 5] comprising:

- a rectangular parallelepiped shaped block [1];
- at least four spirally wound coils [2] arranged parallel relative to each other buried within a composite material forming the block, said coils having axes extending in the same direction; and

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- substantially U-shaped external electrodes mounted on the block for connection to the ends of the four coils.

JP 8-306570 discloses the instant claimed invention except for the composite material being at least either resin or rubber having a magnetic material dispersed therein.

JP 63-79306 discloses an inductor having a coil [1] buried in a block [2] formed of resin material having magnetic material dispersed therein.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the block material of JP 63-79306 for the composite material of JP 8-306570 for the purpose enhancing inductance of the device.

The specific material used for the external electrodes would have been an obvious matter of design choice based on cost considerations and necessary electrical conductivity.

JP 8-306570 in view of JP 63-79306 discloses the instant claimed invention except for the coils having different electrical characteristics.

Masuda discloses an inductor array [10] a plurality of inductive elements [11, 12, 13] disposed within a magnetic body [see figure 4], wherein the inductive elements have different electrical characteristics.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the electrical characteristics of the inductive coils in JP 8-306570, as modified, as suggested by Masuda, for the purpose of controlling inductance output.

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Official notice taken to the effect that it is well known that the coil inductance can be vary by the number of turns, the thickness and the diameter of the wire for the winding.

4. Claims 12, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mamada et al. [US 5,692,290] in view of Shafer et al. [US 6,204,744].

Mamada et al. discloses a composite inductor element [see figure 1a] comprising a plurality spirally wound parallel conductive wires [1a-1d] wound about a single coil axis and burried in a substantially parallelepiped shaped magnetic block.

Mamada et al. discloses the instant claimed invention except for the magnetic block being formed of resin or rubber having a magnetic material dispersed therein and the conductive wires being insulated.

Shafer et al. discloses an inductor [see figure 6] comprising an enamel wire winding [90] burried in a block formed of magnetic material and resin.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the block material Shafer et al. for the composite material of JP 8-306570 for the purpose enhancing inductance of the device.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use insulate conductor wires in Mamada et al., as suggested by Shafer et al., for the purpose insulating the wires from each other.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mamada et al. in view of Shafer et al. as applied to claims 12, 17 and 20 above, and further in view of Masuda.

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Mamada et al. in view of Shafer et al. discloses the instant claimed invention except for the coils having different electrical characteristics.

Masuda discloses an inductor having a plurality of conductive coils with different characteristics.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the electrical characteristics of the inductive coils in Mamada et al., as modified, as suggested by Masuda, for the purpose of controlling inductance output.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3-12, 17, 18 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tuyen T. Nguyen whose telephone number is (703) 308-0821.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Gellner, can be reached at (703)308-1721. The fax number for this Group is (703)305-7724.

Any inquiry of a general nature or relating to the status of this application of proceeding should be directed to the Group receptionist whose telephone number is (703)308-0956.

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December 17, 2001

Tung T. Nguyen